CLAIMS

1. A lead storage battery including:

an electrode plate pack comprising a plurality of negative electrode plates which each comprise a negative electrode grid having a tab and a negative electrode active material layer retained by said negative electrode grid, a plurality of positive electrode plates which each comprise a positive electrode grid having a tab and a positive electrode active material layer retained by said positive electrode grid, and a plurality of separators separating said positive electrode plate and said negative electrode plate;

a positive electrode connecting member comprising a positive electrode strap to which said tab of each positive electrode plate of the electrode plate pack is connected, and a positive electrode pole or a positive electrode connecting body provided at said positive electrode strap; and

a negative electrode connecting member comprising a negative electrode strap to which said tab of each negative electrode plate of the electrode plate pack is connected, and a negative electrode pole or a negative electrode connecting body provided at said negative electrode strap,

wherein said positive electrode grid, said negative electrode grid, said positive electrode connecting member, and said negative electrode connecting member comprise a Pb-alloy including at least one of Ca and Sn,

said negative electrode grid further includes Sb in a part thereof excluding said tab, and

said separator includes silica.

2. The lead storage battery in accordance with claim 1, wherein said separator comprises a microporous synthetic resin sheet and silica particles dispersed in said synthetic resin sheet, and includes 40 to 85 % by mass of said silica particles.

3. The lead storage battery in accordance with claim 1, wherein said separator comprises a fiber mat and silica particles retained by said fiber mat, and includes 10 to 40 % by mass of said silica particles.

4. The lead storage battery in accordance with claim 1, wherein said negative electrode grid in said negative electrode plate includes 0.0002 to 0.006 parts by mass of said Sb per 100 parts by mass of the negative electrode active material.

5. The lead storage battery in accordance with claim 1, wherein said negative electrode grid comprises a base material layer comprising Pb alloy including at least one of said Ca and Sn, and a lead alloy layer including said Sb formed on at least a part of said base material layer.

6. The lead storage battery in accordance with claim 5, wherein said lead alloy layer is formed on a lower region of said negative electrode plate.

7. The lead storage battery in accordance with

claim 1, wherein said positive electrode grid comprises a base material layer comprising Pb alloy including at least one of said Ca and Sn, and a lead alloy layer including Sn formed on at least a part of said base material layer.

8. The lead storage battery in accordance with claim 1, wherein said separator is shaped like a bag, and accommodates said negative electrode plate.